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FOOD ENGINEERING

SINCE 1928, THE SOURCE ON PROCESSING, PACKAGING, AND PRODUCT DEVELOPMENT

1988 SALARY SURVEY

More than just money

FOOD ENGINEERING

COVER STORY

Food company wages this year continued to move ahead. Food job increases ran at an average of 7.8 percent, ahead of the national average of just under 5 percent.

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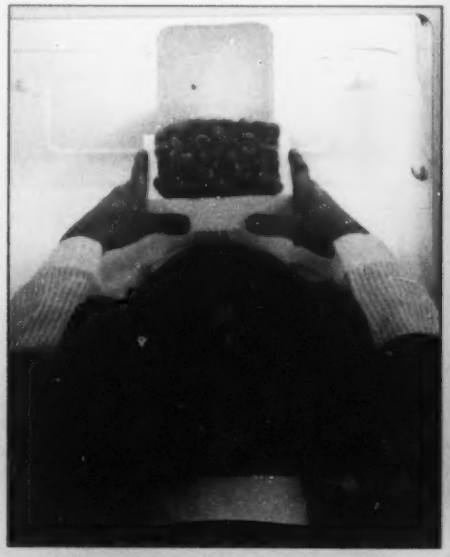

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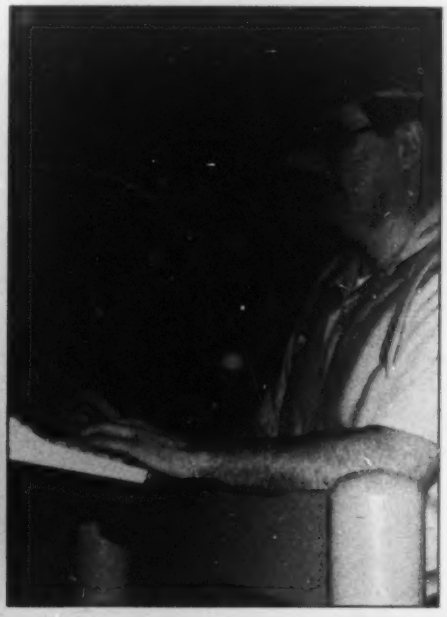

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CASH IS JUST PART OF THE PICTURE

They say that money isn't everything. After you read Food Engineering's annual Salary Survey, you'll see that they are right.

CHUCK HABERSTROH
Editor-in-Chief

Food company wages this year continued to move ahead. The Conference Board had predicted an average salary increase for exempt U.S. workers in 1988 of just under 5 percent. Food jobs ran at an average of 7.8 percent.

Predictably, optimism among food employees still outweighs pessimism.

But only by 14 points. We are not exactly looking at a tidal wave of confidence.

In fact, it is time for the food industry—particularly top management—to listen more seriously to what its people are saying about how things get done.

These conclusions are based on 1,800 responses we had to our latest salary questionnaire, which went out to over 10,000 people at food plants and headquarters locations. This was by far our largest and most comprehensive set of responses; and we think you'll be interested in some of the details.

Woman's place

The overall median salary for 1988 stood at $44,501 give or take a few cents. As you might imagine, there was quite a variance depending on who you were, where you were, what your title was, and still, what sex you were.

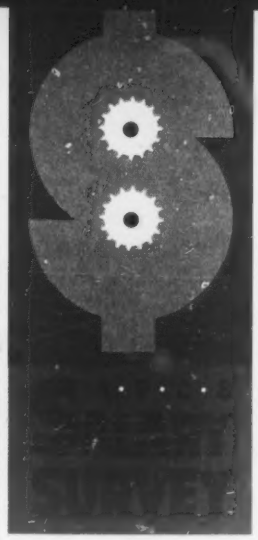
Let's take this last category first. If you were a woman, your median salary was $31,000. If you were a man, it was $47,000. The Department of Labor reports that, overall, women's salaries in the U.S. have climbed to 70 percent of male salaries. Unfortunately, the median in the food industry stands at only about 66 percent of male salaries. Partly that is because there are fewer women at the top of the salary pyramid, which in turn is partly the result of women being in the food industry fewer years than men (median for men is 15 years, for women it is 6—putting women at a major salary disadvantage).

It would, of course, be naive to think that other forces, more subtle ones, are not operating here. One product manager

Median salary by job title

JOB TITLE	MEDIAN SALARY
President	$72,800
Vice President/Mfg.	68,800
Vice President/Mktg.	75,000
Technical Director	77,500
Engineering Manager	53,300
Project Engineer	53,000
Plant Manager	43,100
Purchasing Manager	46,400
Food Technologist	38,200
Quality Control Manager	36,500
Production Supervisor	36,200
Sanitation/Maintenance Mgr.	35,600
	39,700

Source: Food Engineering 1988 Salary Survey



notes, "Men with the same work experience and educational background and at the same level are making ten to fifteen percent more than women." "In this company, women are given equal jobs as the men...but salaries are often twenty-five to thirty-five percent or more lower, and no extras – golf outings, spouses going along to conventions, number of conventions limited," pointed out one purchasing manager. And according to a food technologist: "Females are definitely discriminated against. They are hired in with more education and experience for less money. As far as advancement – when a job goes up on the board with no degree required for a professional level, they are asking for a male. Any job requiring a degree is for a female and is classified at a lower level in respect to the responsibilities."

Who else got what?

Vice presidents of R&D had the highest median salaries – $77,500, noticeably more than presidents ($72,800), mainly because most presidents in the industry are still from smaller companies, while the opposite is true for R&D VPs. VPs of marketing were second in median salary ($75,000). Again, even though there was a broader distribution by company size than with the R&D chiefs, they came from larger companies.

Presidents did have the highest average percentage increases in salary (16.7 percent, compared to 9.1 for marketing VPs, 9.4 percent for plant managers, and 6.2 percent for production supervisors). However, if you were a president your chances of getting that increase were substantially lower than it was for others. For example, almost 83 percent of plant managers got increases, while only 45.6 percent of CEOs got them.

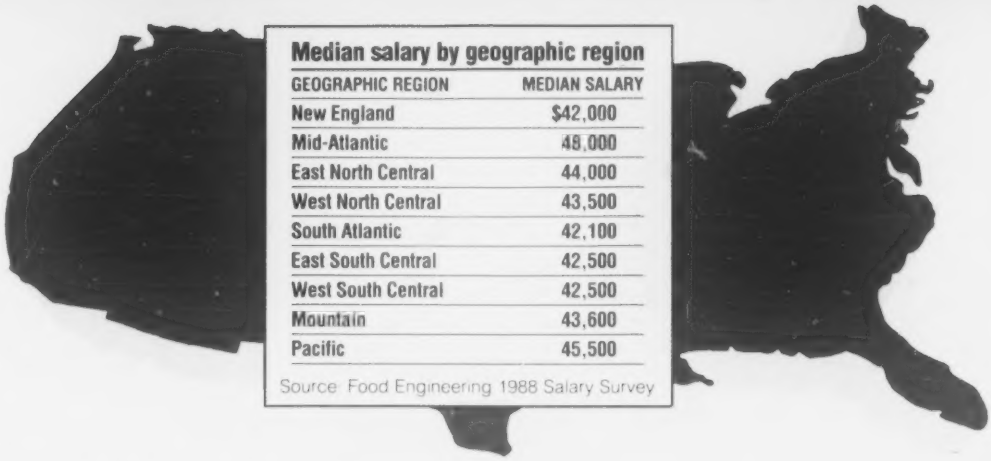
As noted above, second on the list of top-paid jobs was vice president of marketing. And if you look at our salary distribution chart you will see that the marketing end of the business is generally doing quite well (e.g., 31.2 percent of product managers make over $55,000 compared to 5.6 percent of food technologists and 6.7 percent of QC managers). And salary for the marketing people is not the whole ball of wax. As one sales manager noted, "Many salaries such as mine do not give a true picture of income – there are also commissions and other incentives to consider in the final, bottom line number." No wonder, as one respondent complained, "Many fellow employees have left technical research for sales work at other companies for more money."

This respondent, however, may not be seeing the big picture. Our salary distribution chart shows a whopping 71 percent of vice presidents of R&D making above $60,000 – a higher percentage than for VPs of either

Salary range by job function

	Under 25,000	25-29K	30-34K	35-39K	40-44K	45-49K	50-54K	55-59K	60-69K	70K or More
President	5.8%	3.9%	3.9%	3.9%	5.8%	11.7%	4.9%	1.0%	6.8%	51.5%
Vice President/Mfg.	3.8	1.3	1.3	3.8	6.4	3.8	9.0	5.1	16.7	47.4
Vice President/Mktg.	2.0	—	2.0	5.9	5.9	—	5.9	9.8	11.8	56.9
Vice President/R&D	—	—	3.2	—	3.2	3.2	9.7	9.7	12.9	58.1
Plant Manager	3.0	3.7	9.1	13.4	17.1	11.0	14.0	7.3	12.2	7.9
Production Supervisor	3.6	19.3	25.3	14.5	20.5	7.2	2.4	3.6	3.6	—
Engineering Manager	—	3.4	4.2	8.5	15.3	11.0	12.7	9.3	17.8	17.8
Project Engineer	—	4.9	11.0	18.4	25.2	14.1	12.9	3.7	8.6	1.2
Packaging Manager	2.4	4.9	2.4	9.8	12.2	12.2	22.0	17.1	9.8	7.3
Technical Director	3.5	3.5	7.9	9.6	9.6	8.8	10.5	5.3	14.0	27.2
QC Manager	10.1	17.4	17.4	19.5	14.8	9.4	4.0	3.4	2.0	1.3
Food Technologist	11.3	18.4	14.9	17.7	14.9	9.9	7.1	2.8	2.8	—
Chemist	16.0	16.0	16.0	20.0	6.0	10.0	10.0	—	2.0	4.0
Product Manager	—	9.4	9.4	15.6	12.5	6.3	15.6	3.1	15.6	12.5
Sanitation/Maint. Mgr.	9.4	5.7	17.0	18.9	17.0	17.0	9.4	1.9	3.8	—
Transport./Distr. Mgr.	12.1	3.0	18.2 — 21.2		—	21.2	9.1	3.0	12.1	—

Source: Food Engineering 1988 Salary Survey



Median salary by geographic region

GEOGRAPHIC REGION	MEDIAN SALARY
New England	$42,000
Mid-Atlantic	48,000
East North Central	44,000
West North Central	43,500
South Atlantic	42,100
East South Central	42,500
West South Central	42,500
Mountain	43,600
Pacific	45,500

Source: Food Engineering 1988 Salary Survey

manufacturing or marketing, and higher even than presidents. The problem may be educational access. Advanced education is a must. For example, 29 percent of our R&D VP respondents have a master's degree and 29 percent have a Ph.D. And while food technologists in the study had the requirements at the master's level (34.8 percent), only 7.8 percent had it at the Ph.D. level.

It seems also to be true, at least as far as salary goes, that bigger is better. The highest median salary by location size was for locations with 2,500 or more employees ($52,200). Also, the larger the location, the larger the percentage of employees who got raises. This is one area, anyway, where some of the consolidations that have taken place in the industry pay direct dividends.

Is everybody happy?

As in years past, we wanted to see if the basic nature of our respondents' jobs were changing, and also how they assessed their chances for advancement. Beyond the simple check-off answers, however, we were able to ask them to specifically comment on each of these matters. Some of the clusters of answers raised very clear issues.

First of all, 64 percent of all the respondents were looking at increased duties. And in many, many cases, the pattern was added responsibility coming from consolidations of one kind or another, like reduced staffs and merged operations – the panoply of effects of the lean/mean and merger/acquisition philosophies. This is a sample of what they had to say:

- "With upcoming announced plant closure, departees' duties have fallen to those who remain."
- "Two locations have consolidated. Processes are being moved from one location to another."
- "Cutback on supervisors – [I'm] now supervisor of three departments."
- "People retire and are not replaced."
- "Reduction in head count and increased emphasis on new products."

It was clear from the 1,700 comments that more than ever before pressure was on food company managers as much from contraction as from expansion – and often both at the same time. Under the best of circumstances there is too much to do. Take this technical director: "Increased staff/project load in R&D new product development, packaging and processing, QC/QA responsibility, additional contract packers for U.S.

Median salary by location size

NUMBER OF EMPLOYEES	MEDIAN SALARY
Under 20	$46,300
20-49	40,100
50-99	41,900
100-249	42,700
250-499	44,100
500-999	46,200
1000-2499	51,100
2500 or More	52,200

Source: Food Engineering 1988 Salary Survey

and Canadian markets, increased direct purchasing of fruit juice/drink concentrates, bases, others...." And under the circumstances of escalating consolidations or cutbacks things can begin to outstrip the manager who has to make them work: "I've gone from being responsible for production only to being responsible in addition for personnel, warehousing, packaging, and shipping."

The downside of consolidation is reflected in the almost 40 percent of respondents who said they were pessimistic about their chances for advancement. Again, one of the major clusters of comments had to do with shrinking opportunity because of shrinking size:

- "The company is downsizing on the corporate level."
- "Merger will eventually reduce personnel needs."
- "Continuing overhead reductions have taken their toll in available positions."
- "Manufacturing consolidations are closing plants as the company grows. Fewer opportunities."
- "Long term plans are to eliminate first line managers and let hourly personnel slowly take over responsibilities."

It must be noted, however, that among the almost 54 percent of respondents who were optimistic about their chances for advancement, one could occasionally see the other side of the coin – consolidation and increased responsibility creating increased visibility, and hence more chance for getting ahead. One technical director, for example, attributed his success to the "attrition of the senior members of the staff" and his own good track record.

Some of the other sources of pessimism among food company employees? One that kept rising to the surface was the discontent with the structure of family and other closely held businesses. Indeed, there was always a very clear line visible to our respondents as to where they left off and family or owners began. For example, there was the marketing VP who noted that he was at the "highest available" position in the company for him. Why? "Above is family," as he rather ominously put it. Other samples:

- "No improvement, because of family owned business."
- "Although most operations functions are controlled by me, decision making is closely held by the owners."
- And in the category of being thankful for small favors we have this response from a quality control manager: "Management turnover this year. The new president is the

Responsibilities and expectations

	MALE	FEMALE
Responsibilities (over the past year)		
Have Increased	61.5%	79.7%
Stayed the Same	33.7	16.9
Chances for advancement		
Optimistic	53.0	57.1
Pessimistic	38.7	37.5

Source: Food Engineering 1988 Salary Survey

Job title by sex

JOB TITLE	MALE	FEMALE
President	94.2%	5.8%
VP/Manufacturing	96.2	2.6
VP/Marketing	98.0	2.0
VP/R&D	100.0	—
Product Manager	78.1	21.9
Plant Manager	96.3	3.7
Production Supervisor	92.8	7.2
Engineering Manager	96.6	3.4
Project Engineer	90.8	8.0
Purchasing Manager	81.5	18.5
Technical Director	88.6	11.4
QC Manager	71.8	28.2
Food Technologist	58.2	41.8

Source: Food Engineering 1988 Salary Survey

Median salary by sex

Source: Food Engineering 1988 Salary Survey

Foodnotes from Eastman

Back to nature

Tocopherols are nature's fat-soluble antioxidants and exist in four forms: alpha-, beta-, gamma-, and delta-tocopherol. Alpha tocopherol (Vitamin E) is widely used as a nutritional supplement. Beta-tocopherols exist in concentrations too low to have any practical significance. Gamma- and delta-tocopherols are known primarily for their antioxidant properties and are widely used where customer preference requires the use of a natural antioxidant. More than 80% of the tocopherols in Tenox GT-2 are gamma- and delta-tocopherols.

If one needs an all natural antioxidant due to regulatory considerations or marketing strategy, Tenox GT-2 mixed tocopherols can prove extremely valuable in products containing tallow, lard, poultry fat or similar animal fats — as well as those of vegetable origin which may sometimes happen to be low in naturally occurring tocopherols. A glance at Table I will show you.

TABLE I

Fat	Tocopherol	Total Tocopherols (ppm)	AOM Stability* at 208°F (97.8°C)
Lard	none	—	7
	dl-alpha	200	33
	mixed	50	33
	mixed	100	45
	mixed	200	48
Tallow	none	—	7
	mixed	200	105
Butter Oil	none	—	35
	mixed	200	122

*hours to develop peroxide value of 20 meq/kg

In most applications, addition levels of 0.015–0.045% of GT-2 are sufficient to promote stability, enhance palatability and protect sales appeal. When employed at these concentrations, it does not impart odor, flavor or color to fats, foods or food products. A word of caution is needed, however. Just because Tenox GT-2 mixed tocopherols exhibit very good activity, you should not be tempted to go overboard. At too high levels it can exert a *pro*-oxidant effect as you can see is the case for lemon terpenes in Table II.

TABLE II

Mixed Tocopherols (ppm)	AOM Stability* Lemon Terpenes	Grapefruit Oil	Orange Oil	Lemon Oil
0	3	35	32	18
100	98	60	75	57
250	159	96	119	132
400	127	146	174	188

*hours @ 65°C to develop peroxide value of 70 meq/kg

As gamma- and delta-tocopherols are not readily volatile at temperatures normally encountered in food processing and home cooking, carry-through of Tenox GT-2 antioxidant is excellent in sweet goods, snack products and other baked and fried foods. This is shown in Table III.

TABLE III

Mixed Tocopherols in Beef Tallow (ppm)	Schaal Oven Stability (145°F)* Potato Chips	Pastry	Crackers
0	6	28	14
200	65	61	61

*days to develop rancid odor

The antioxidant properties of Tenox GT-2 can be enhanced by adding acid synergists such as citric acid and ascorbic acid. These acids are mild antioxidants and metal-chelating agents. (Free metal ions are known to catalyze free radical oxidation of lipids.) Citric acid and ascorbic acid can be added to fats and oils in a propylene glycol solution or propylene glycol/water solution at levels of approximately 0.005%.

For more information on these products write to Suzanne Miller at Eastman Chemical Products, Inc., a subsidiary of Eastman Kodak Company, P.O. Box 431, Kingsport, TN 37662.

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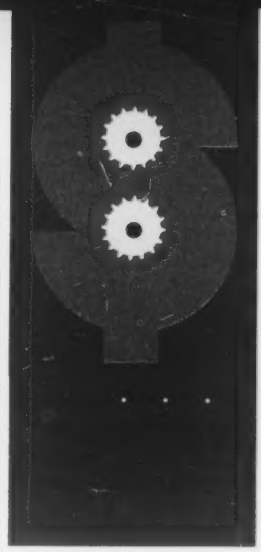

Salary shifts

("Increase" and "Decrease" refer to percentage of respondents whose salary showed some movement. "Mean Increase" is the percentage of actual individual salary increase.)

	Increase	Decrease	Mean Increase
SEX			
Male	83.0	1.5	7.7
Female	83.9	1.9	8.8
LOCATION SIZE			
Under 20	58.4	2.5	12.9
20-49	71.3	1.8	8.3
50-99	80.0	3.2	7.5
100-249	86.4	1.3	8.4
250-499	85.8	1.0	7.1
500-999	90.7	1.5	6.8
1000-2499	93.3	0.6	6.8
2500 or More	93.1	—	6.5

Source: Food Engineering 1988 Salary Survey

founder's son. Started one week before I did. He listens better than the previous general manager."

One other area we probed was what respondents felt was the greatest obstacle keeping them from performing their jobs more effectively. We know that whatever one's salary and whatever one's attitude toward advancement, feeling effective in a job is a rock bottom consideration for job satisfaction.

I suppose that what we heard was not surprising: The largest single complaint had to do with the perceived quality of upper management. We might dismiss this by saying that people always complain most about their bosses. That is hard to say, however, when so many of our respondents are managers themselves, and very able to objectively evaluate difficulties. So, it would be good for senior managers to take note of what we heard.

There was also an accompanying theme running through the remarks about management: the need for better information and communication, whether among individuals, departments, and management levels, or simply in terms of a more articulated company business plan.

Some perspectives we got on what was causing performance roadblocks:

- "Lack of management support for installation of information and production automation systems."
- "[Lack of] access to information."
- "[Lack of] direction from upper management. Communication between management and all phases of the company."

Median salary by industry

PRODUCT SPECIALTY	MEDIAN SALARY
Pasta	$50,500
Beverages	49,200
Seafood	49,600
Grain Milling	49,500
Dairy	43,600
Confectionery	43,100
Fats & Oils	49,400
Fruits & Vegetables	47,100
Bakery	46,300
Meat	44,000

Source: Food Engineering 1988 Salary Survey

- "Bureaucracy."
- "[Lack of] confidence in senior management."
- "[Lack of] a coordinated company vision and mission."
- "Company's organizational layout."
- "Lack of and/or poorly defined company goals. Inadequate long-range planning. Poor communications with upper management."

It is good to remember, however, that presidents can feel as hemmed in as those below them. Consider this response from one of the CEOs to the above question of the obstacle stopping him from performing his job more effectively: "Several problems here. A stagnant local economy, people working for you that really don't care about quality, suppliers that really don't care about you, customers that want high quality products but are not willing to pay for it."